



**STRAMIT LONGSPAN® RECOMMENDED FASTENINGS (CYCLONIC FIXING)**

STEEL 0.75mm thick	No 14 - 10 x 50mm Hex Head Type 17 screw + sealing washer + caps
STEEL 1.1mm thick	No 14 - 10 x 50mm Hex Head Self-drilling and tapping screw + sealing washer + caps
HARDWOOD (P/F/J2/JD2 or stronger)	No 14 - 10 x 65mm Hex Head Type 17 screw + sealing washer + caps
SOFTWOOD (P/F8/J4/JD4 or stronger)	No 14 - 10 x 75mm Hex Head Type 17 screw + sealing washer + caps
Side Laps	No 8 - 15 x 15mm Hex Head screw + sealing washer for spans exceeding 900mm

All fastening screws should conform to AS3566-class 3 or above.  
Caps: Steel Caps (Cyclonic washers) assembly, complete with sealing washer. Use steel caps, minimum 38mm long, 35mm wide (across rib) and 1mm thick. Data below not valid for caps which do not restrain the sides of the profile.

Product name  
**STRAMIT LONGSPAN®**

Product Description  
Stramit Longspan® is manufactured from G550 colour coated or zinc-aluminium alloy coated (AZ150) steel. In some locations galvanised (Z450) may also be available.

**STRAMIT LONGSPAN® CLADDING - SERVICEABILITY LIMIT STATE CAPACITY (CYCLONIC)**  
pressure (kPa) at the spans (mm) shown

BMT (mm)	fasteners per sheet	span-type	Roof Sheeting (Crest fixed)					
			450	600	900	1200	1500	1800
0.42	5 with cyclone caps	internal	5.58	5.58	5.58	4.52	3.60	2.82
		equal	4.93	4.93	4.33	3.78	2.82	2.05
		double	4.33	4.33	3.60	2.82	2.08	
0.48	5 with cyclone caps	internal	8.67	8.67	8.67	6.31	5.71	3.35
		equal	7.17	7.17	7.17	4.88	3.35	2.42
		double	4.97	4.97	4.97	3.94	3.09	2.39

**STRAMIT LONGSPAN® CLADDING MAXIMUM SPAN CHART (mm)**  $C_{p,e} = -0.9$  ( $h/d \leq 0.5$ )

Crest fixed roof sheeting - five fasteners per sheet with cyclone caps

TC	h	local press. factor	pressure (kPa) strength	Timber Battens						0.75mm Cyclonic Steel Battens					
				0.42mm thick (bmt)			0.48mm thick (bmt)			0.42mm thick (bmt)			0.48mm thick (bmt)		
				internal	equal	double	internal	equal	double	internal	equal	double	internal	equal	double
1&2	≤ 10m	1.0	4.57	1450	1400	1250	1750	1600	1350	1450	1400	1250	1550	1400	1250
		1.5	5.86	1250	1150	1050	1300	1150	1100	1200	1100	950	1200	1100	950
		2.0	7.14	1050	1000	800	1100	1050	950	1000	900	800	1000	900	800
1&2	≤ 5m	1.0	4.12	1600	1500	1350	1800	1800	1550	1600	1500	1350	1750	1600	1400
		1.5	5.29	1350	1250	1150	1500	1350	1150	1350	1250	1100	1350	1250	1100
		2.0	6.45	1150	1050	950	1150	1100	1050	1100	1000	900	1100	1000	900
2.5	≤ 10m	1.0	3.62	1700	1600	1500	1800	1800	1600	1700	1600	1500	1800	1800	1600
		1.5	4.64	1450	1350	1250	1750	1550	1350	1450	1350	1250	1550	1400	1250
		2.0	5.66	1250	1150	1050	1350	1200	1100	1250	1150	1000	1250	1150	1000
3&4	≤ 10m	1.0	2.93	1800	1750	1700	1800	1800	1800	1800	1750	1700	1800	1800	1800
		1.5	3.75	1650	1550	1450	1800	1800	1700	1650	1550	1450	1800	1750	1550
		2.0	4.57	1450	1400	1250	1750	1600	1350	1450	1400	1250	1550	1400	1250

Design Criteria  
Spans are based on the combinations of the following factors, for Region C, in accordance with AS1170.2-  
Strength: Regional wind speed  $V_{500} = 69m/s$   
Serviceability: Regional wind speed  $V_{25} = 47m/s$   
Terrain / Height Multiplier ( $M_{z,cat}$ ):

TC	'h' up to 5m		'h' up to 10m	
	serviceability	strength	serviceability	strength
1&2	1.05	0.95	1.12	1.00
2.5	0.87	0.88	0.92	0.95
3&4	0.83	0.80	0.83	0.89

Wind direction multiplier:  $M_d = 1.0$   
Shielding multiplier:  $M_s = 1.0$   
Topographic multiplier:  $M_t = 1.0$   
Dynamic response factor:  $C_{dyn} = 1.0$   
Internal pressure coefficient:  $C_{p,i} = +0.2$  service  
Internal pressure coefficient:  $C_{p,i} = +0.7$  strength  
External pressure coefficients:  
 $C_{p,e} = -0.9$  for  $h/d \leq 0.5$ , and for horizontal distance from windward edge of the roof up to 'h'  
 $C_{p,e} = -1.3$  for  $h/d \geq 1.0$ , and for horizontal distance from windward edge of the roof up to '0.5h'  
TC - Terrain category, h - Average roof height, d - Building length or width, and local pressure factors as defined in AS1170.2.  
Test factor  $k_t = 1.21$  in accordance with Table B1 of AS1170.0.

**STRAMIT LONGSPAN® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC)**  
pressure (kPa) at the spans (mm) shown

BMT (mm)	fasteners per sheet	span-type	Roof Sheeting (Crest fixed)					
			450	600	900	1200	1500	1800
0.42	5 with cyclone caps	internal	10.00	9.68	8.72	6.20	4.54	3.28
		equal	9.09	8.80	7.93	5.64	4.13	2.98
		double	8.00	7.74	6.98	4.96	3.63	2.62
0.48	5 with cyclone caps	internal	10.81	10.57	10.00	6.37	5.29	4.54
		equal	9.83	9.61	9.09	5.79	4.81	4.13
		double	8.65	8.46	8.00	5.10	4.23	3.63

**STRAMIT LONGSPAN® CLADDING MAXIMUM SPAN CHART (mm)**  $C_{p,e} = -1.3$  ( $h/d \geq 1.0$ )

Crest fixed roof sheeting - five fasteners per sheet with cyclone caps

TC	h	local press. factor	pressure (kPa) strength	Timber Battens						0.75mm Cyclonic Steel Battens					
				0.42mm thick (bmt)			0.48mm thick (bmt)			0.42mm thick (bmt)			0.48mm thick (bmt)		
				internal	equal	double	internal	equal	double	internal	equal	double	internal	equal	double
1&2	≤ 10m	1.0	5.71	1250	1150	1050	1350	1200	1100	1250	1150	1000	1250	1150	1000
		1.5	7.57	1000	900	850	1100	1000	900	950	850	850	950	850	750
		2.0	9.43	850	800	700	900	700	700	850	700	700	850	700	700
1&2	≤ 5m	1.0	5.16	1350	1250	1150	1550	1350	1150	1350	1250	1100	1400	1250	1100
		1.5	6.83	1100	1000	900	1150	1100	1000	1050	950	850	1050	950	850
		2.0	8.51	900	700	700	1000	950	850	850	700	700	850	750	550
2.5	≤ 5m	1.0	4.53	1500	1400	1250	1800	1600	1350	1500	1400	1250	1600	1450	1250
		1.5	6.00	1200	1150	1000	1300	1150	1100	1200	1100	950	1200	1100	950
		2.0	7.47	1000	950	700	1100	1000	950	850	850	700	950	850	750
3&4	≤ 10m	1.0	3.66	1700	1600	1450	1800	1800	1750	1700	1600	1450	1800	1800	1550
		1.5	4.84	1400	1350	1200	1650	1450	1250	1400	1350	1200	1500	1350	1200
		2.0	6.03	1200	1100	1000	1250	1150	1100	1200	1050	950	1200	1050	950

Limitations:  
- This DTC sheet is for roof applications only.  
- Foot traffic limitations as indicated.  
- Internal spans should have both end spans 20% shorter than the tabulated values.  
- The maximum roof pitch is: 25°  
- The maximum permissible free edge overhang is: 150mm from screwline.  
- The maximum permissible stiffened edge overhang is: 350mm from screwline.  
- Sheeting span can be limited by maximum batten spacing when using cyclonic steel battens. It is essential that the relevant deemed to comply information for the batten product is used in conjunction with this sheet.

**STRAMIT LONGSPAN® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC)**  
pressure (kPa) at the spans (mm) shown

BMT (mm)	fasteners per sheet	span-type	Roof Sheeting (Crest fixed)					
			450	600	900	1200	1500	1800
0.42	5 with cyclone caps	internal	10.00	9.68	8.09	6.07	4.54	3.28
		equal	9.09	8.80	7.35	5.51	4.13	2.98
		double	8.00	7.74	6.47	4.85	3.63	2.62
0.48	5 with cyclone caps	internal	10.81	10.57	8.09	6.07	4.85	4.04
		equal	9.83	9.61	7.35	5.51	4.41	3.67
		double	8.65	8.46	6.47	4.85	3.88	3.23

Accepted for Inclusion  
DTCM ref: M/147/01  
Chairman's Signature: *P. Russell*  
Chairman's Name: PETER RUSSELL  
Date of Approval: 6/8/09 Expiry Date: 6/8/12

Note: Shaded areas are not foot trafficable when tested in accordance with AS1562 and AS4040 parts 0 and 1.  
Note: Tables are based on an extensive LHL test program (Test Report No.s TS677, TS702, TS715 & TS721) carried out by James Cook University Cyclone Testing Station in accordance with BCA 2009.  
- For information on durability, slope and other details and limitations please refer to the Stramit Longspan® Product Technical Manual or the Stramit® Roof Slope Guide.  
- Tabulated values may be interpolated but not extrapolated.  
- For other values of 'h', spans can be determined using the limit state capacity tables on the left.

\*Design Engineer's Certification  
Name: A. Stancombe  
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Date: 14/7/09  
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\*registered as a structural engineer in Australia

\*Certifying Engineer's Certification  
Name: Townes Chappell Mudgway P/L  
Registration Number: 12611ES  
Date: 14.07.09  
Signature: *T. Chappell*  
\*\*registered as a structural engineer in Northern Territory

New Expiry 5/2/16  
Signature: *[Signature]*